

# **Solvability of physically and geometrically nonlinear problem of the theory of sandwich plates with transversally-soft core**

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## **Abstract**

© 2015, Allerton Press, Inc. The paper presents a generalized statement of geometrically and physically nonlinear problem of the equilibrium of sandwich plate with transversally-soft core. Generalized statement is formulated as a problem of finding a saddle point of a functional. We investigate the properties of this functional. These properties allow to prove a theorem of solvability of variational problem under consideration.

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## **Keywords**

saddle point, sandwich plate, theorem of solvability, transversally-soft core